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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,388	05/21/2001	Jose E. Gonzalez	DP-301117	8897

7590

05/07/2003

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EXAMINER

RUTHKOSKY, MARK

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/862,388

Applicant(s)

GONZALEZ ET AL.

Examiner

Mark Ruthkosky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 5/21/2001 has been placed in the application file, and the information referred to therein has been considered as to the merits. The reference to Kuller et al. (EnV'98 Energy Storage Devices) cannot be considered, as there is no date of publication.

### ***Drawings***

2. The examiner has approved the drawings, filed on 5/21/2001.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 10 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Velasquez et al. (US 5,616,152.)

The instant claims are to a method of making lithium-intercalateable electrodes for batteries comprising the steps of applying film-forming slurry to an electrically conductive grid wherein the slurry includes a plurality of lithium-intercalateable particles dispersed throughout a mixture of a polymeric binder and drying the slurry.

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Velasquez et al. (US 5,616,152) teaches a method of making lithium-intercalateable electrodes for batteries comprising the steps of applying a film-forming slurry to one or both sides of an electrically conductive grid wherein the slurry includes a plurality of lithium-intercalateable particles dispersed throughout a mixture of a polymeric binder and drying the slurry (see column 9, lines 25-40, examples 1-2 and claims 1-14.) Lithium intercalation electrodes are noted to include a slurry of an active material, a binder and a plasticizer, (in col. 7.) Electrolyte is shown to imbibe the porous electrodes upon assembly of the cell through the porous structure based on the removal of the plasticizer (see col. 5, line 50 to col. 6, line 15.) The electrode film may also be prepared from a film forming a laminate with the electrode active material film applied to both sides of the current collector (column 9, lines 25-40.) Heat and pressure may be applied to form the electrode. The current collector includes metal foils and screens (col. 3, lines 1-25) and the process of pressing the sheets onto the collector is inherently embedding the film onto the collector. As such, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Velasquez et al. (US 5,616,152.)

The teachings of Velasquez et al. (US 5,616,152) have been presented. The reference does not teach the steps of embedding a grid into the active material film before or after the film is dried. Further, it does not teach heating the grid prior to embedding the film. The reference does state that heat and pressure may be applied to facilitate lamination. It would be obvious to one of ordinary skill in the art at the time the invention was made to use heat and pressure upon either or both of the active material film and the current collector in order to facilitate bonding of the material to the collector grid. One of ordinary skill in the art would understand from the teachings of the reference to apply the film with heat and pressure in order to facilitate lamination of the electrode. Further, as the electrode active material is taught to be directly added to the collector as a slurry, one of ordinary skill would recognize that the grid may be embedded into the film before the film is dried.

The artisan would have found the claimed invention to be obvious in light of the teachings of the reference.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art does not read upon the instant claims, however, the references include general teachings and relevant features as to the state of the art at the time of the invention.

### ***Examiner Correspondence***

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193. Any inquiry

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concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 703-305-0587. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:00.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 703-308-2383.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Mark Ruthkosky

Patent Examiner

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5/4/03